

FIGURE 1

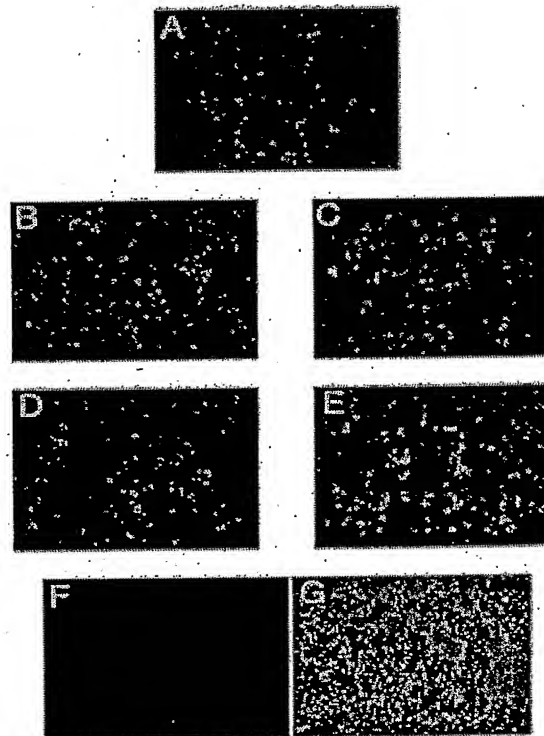


FIGURE 2

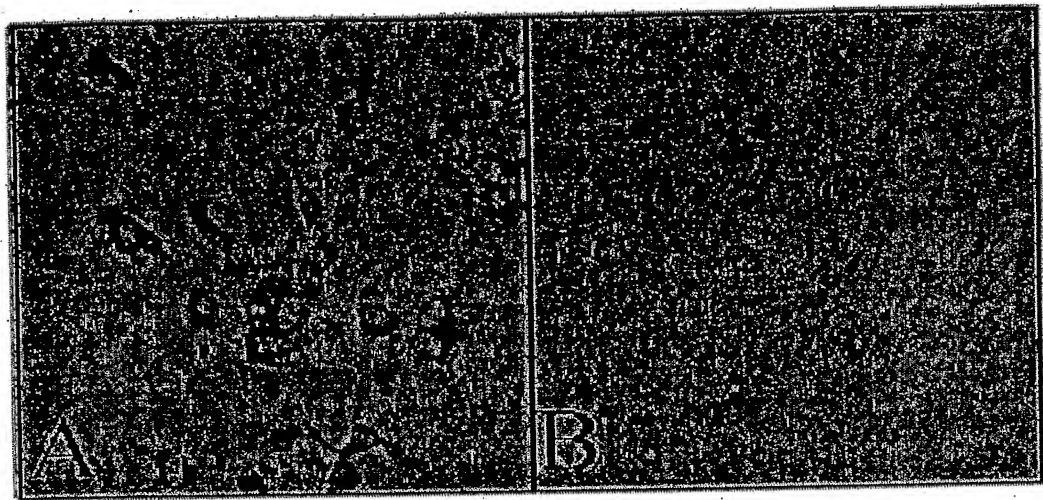


FIGURE 3

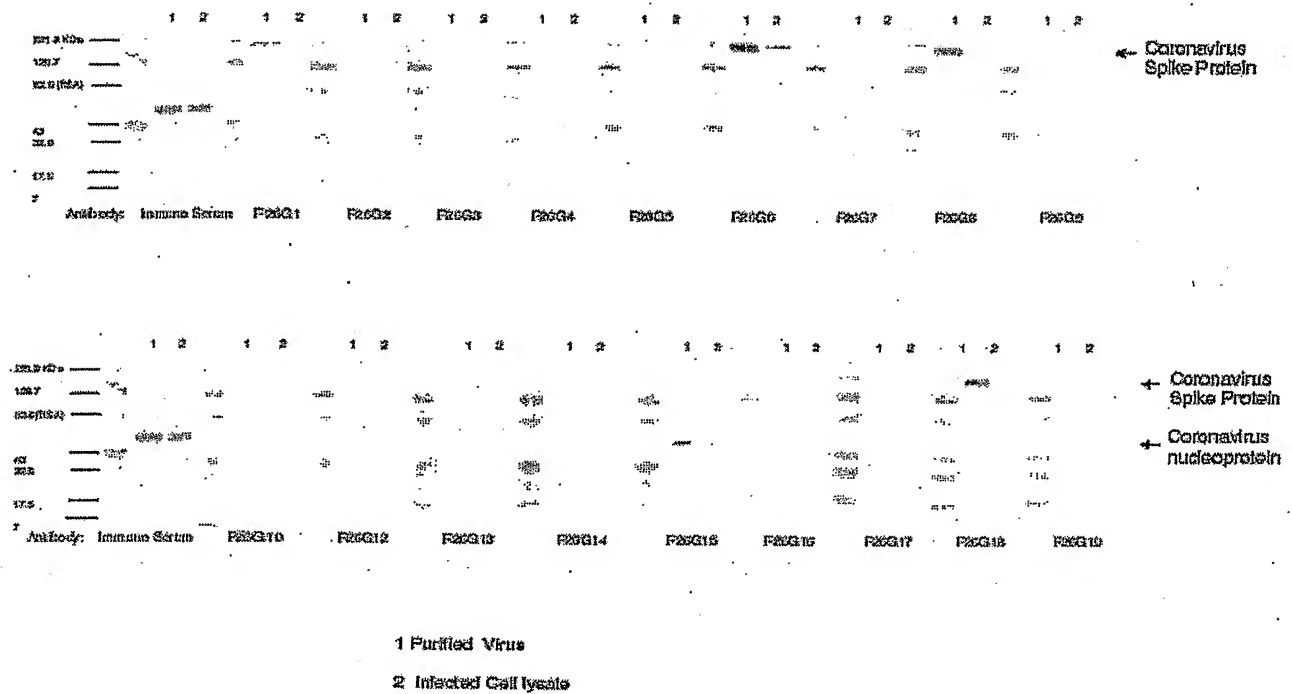


FIGURE 4

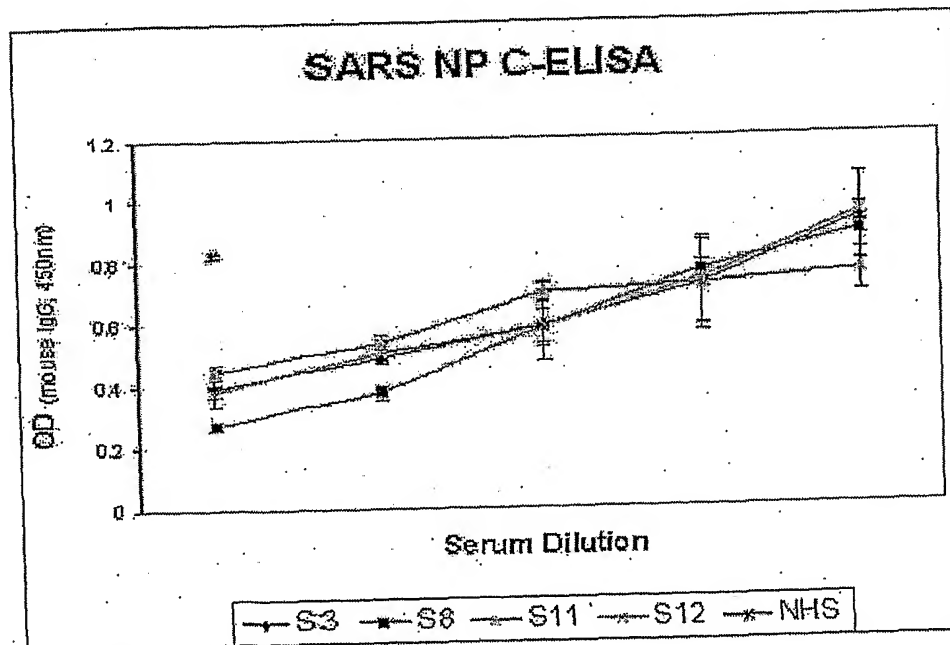
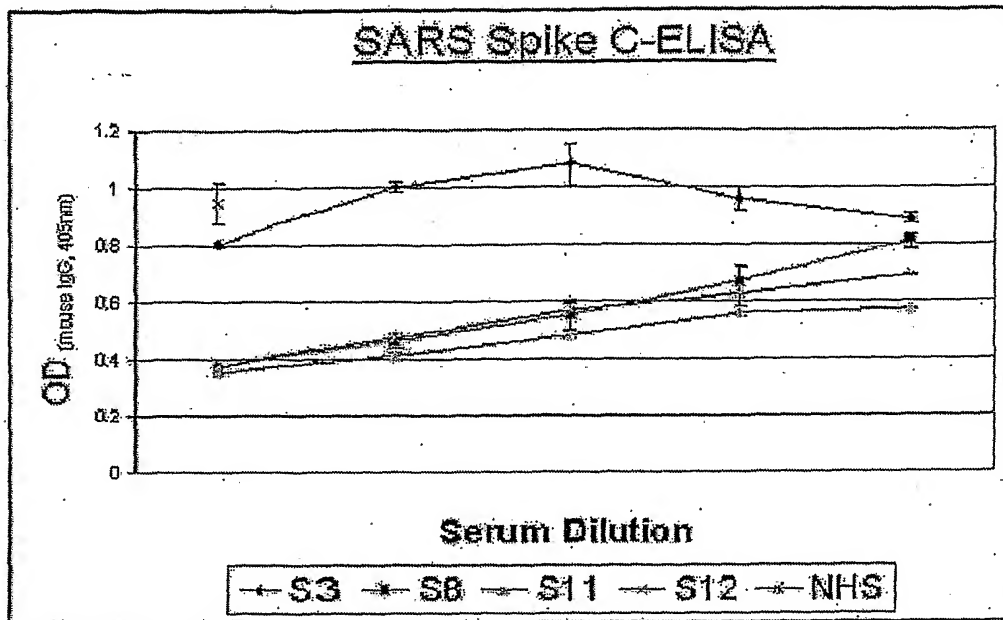


FIGURE 5

SARS CoV mAb V_L alignment

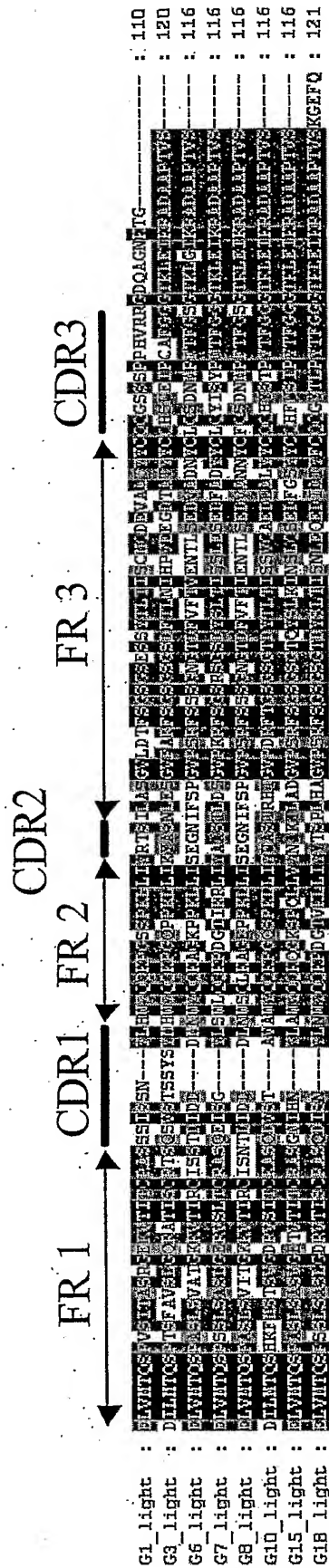


FIGURE 6A

SARS CoV mAb V_H alignment

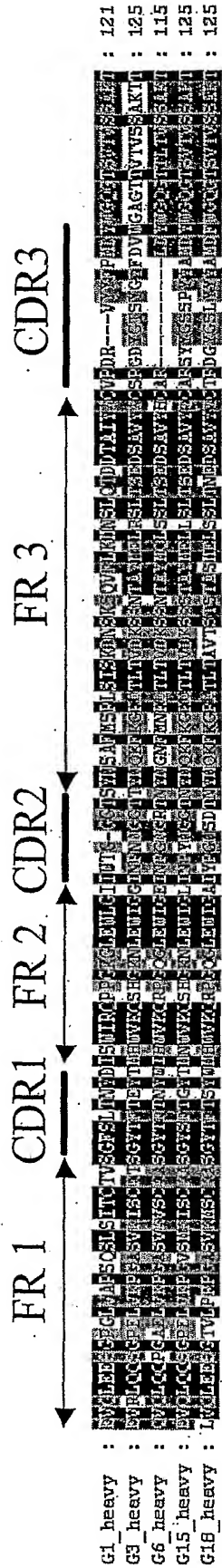


FIGURE 6 B

SARS-specific monoclonal antibodies, Heavy chains (VH), amino acid sequences

F26G3-VH

EVRLQQSGPELVKPGASVKISCKTSGYTFTEYTMHWVKQSHGKNLEWIGGINPNNGGTTYNQKFKG
KATLTVDKSSNTAYMELRSLTSEDSAVYYCSRGDYGYFDVWGAGTTVTVSSAKTTAPSVYPL
A

F26G7-VH

VELLESGTVLARPGASVKMSCEASGYTFTTYWMHWIKQRPQGQLEWIGAIYPGNSDTTYNQKFKGK
AKLTAVTSTSTAYMELSSLTNEDSAVYYCTREGIPQLLRMTDYWGQGTSTVTVSSAKTTPPSV

F26G9-VH

VQLEESGTVLARPGASVKMSCKASGYSFTSYWMHWVKQRPQGQLEWIGAIYPGNSDTSYNQKFKGK
AKLTAVTSASTAYMELSSLTNEDSAVYYCTRSVYGYGYFDVWGAGTTVTVSSAKTTPPSV

F26G10-VH

EVQLEESGTVLARPGASVKMSCKASGYSFTSYWMHWVKQRPQGGLDWIGAIYPENS DTSYNQKFKG
KAKLTAVTSASTAYMEHSSLTNEDSAVYYCTRSVYGYGYFDVWGAGTTVTVSSAKTTAPSVYPLA
PVCGDTTGSSVTLGCLVKGYFPEPVTLTWN SGLSSGVHTFPAVLQSDLYTLSSSVTVTSSTWPSQ
SITCNVAHPASSTKVDKIEPRVPTSQN

F26G18-VH

LVQLEESGTVLPRPGASVKMSCKASGYTFTSYWMHWVKQRPQGQLEWIGAIYPGNSDTNYNQKFKG
RATLTAVTSTSTASMELSSLTNEDSAVYYCTRDGYGSLYYAMDFWGQGTSTVTVSSAKTTAPSVK

F26G19-VH

EVQLEESGTVLARPGASVKMSCKASGYTFTTYRMHWIKQRPQGQLEWIGAIYPGNSDTTYNQKFKD
KAKLTAVTSTSSAYMELSSLTNEDSAVYFCTREGIPQLLR TLDYWGQGTSTVTVSSAKTTAPSVYPL
A

F26G1-VH

EVQLEESGPGLVAPSQSL SITCTVSGFSLTNYDISWIRQPPGKGLEWLGI IWTGGGTSYNSAFMSR
LSISKDNSKSQVFLKMNSLQTD DTAIYYCVRDRVYFPM DYWGQGTSTVTVSSAKTTAPSVYPLA

F26G6-VH

MEWSWVFLFLVATATDVHSQVQLQQPGAELVKPGASVKVSKASGYTFTNYWIHWVKQRPQGQLEW
IGEINPGNGRTNYNGNFMNKATLTVDKSSNTAYMQLSSLTSEDSAVYH CARLDYWGQGTTLTVSSA
KTTPPSV

F26G8-VH

VQLESGAELVKPGASVKVSKASGYTFTSYWIHWVKQRPQGQLEWIGEINPSNGRTNYNGNFESK
ATLTVDKSSNTAYMHLSSLTYEDSAVYHCTR LDYWGQGTTLTVSSAKTTAPSVYPLA

Neutralizing mAbs are in **bold text**.

FIGURE 7

SARS-specific monoclonal antibodies, Light chains (VL), amino acid sequences

F26G3-VL

DILMTQSP^{**TS**}FAVSLGQRATISCR^{**TS**}QSVSTSSYSYMH^{**WY**}Q^{**Q**}KPGQPPKLLIKYASNLESGV^{**PARF**}
SGSGSGSDFTLNHPVEEGDTATYYCQHSWEIPCAF^{**GGG**}TKLEIKRADAAPTVS

F26G7-VL

ELVMTQSPSSLSASLGERVSLTCRASQEISGYLSWLQ^{**Q**}KPDGTIKRLIYAAS^{**TL**}D^{**SG**}VPKRFSGSR
SGSDYSLTISSEDFADYYCLQYISYPWT^{**F**}GGG^{**TK**}LEIKRADAAPTVS

F26G9-VL

DILMTQSHKCMSTSVGDRVSITCKASQDVSTAVVWYQ^{**Q**}KPGQFPKLLIYWASTRHTGVPDRFTGSG
SGTDYTLTIS^{**SV**}QAEDLALYYCQ^{**Q**}HYTTPYT^{**F**}GGG^{**TK**}LEIKRADAAPTVS

F26G10-VL

DILMTQSHKFMSTSVGDRVSITCKASQDVSTAVAWYQ^{**Q**}KPGQSPKLLIYWASTRHTGVPDRFTGSG
SGTDYTLTIS^{**V**}QAEDLALYYCQ^{**Q**}HYSTPYT^{**F**}GGG^{**TK**}LEIKRADAAPTVS

F26G18-VL

ELVMTQSPSSLSASLGDRVTISCRASQDISNYLNWYQ^{**Q**}KPDGTVKLLIYYTSRLHAGVPSR^{**F**}SGSG
SGTDYSLTISNLEQEDIATYFCQ^{**Q**}GYTLPT^{**F**}GGG^{**TK**}LEIKRADAAPTVSKGEFQHTGGRY

F26G19-VL

DILMTQSPSSLSASLGERVSLTCRASQEISGYLSWLQ^{**E**}KPDGTIKRLIYAAS^{**TL**}D^{**SG**}VPKRFSGSR
SGSDYSLTISSEDFADYYCLQYVSY^{**P**}WT^{**F**}GGG^{**TK**}LEIKRADAAPTV

F26G1-VL

ELVMTQSPV^{**S**}ITASRGEKVTITCRASS^{**SI**}SSNYLHWYQ^{**Q**}KPGSSPKLLIYRTSILASGVLDTFSGS
GSESSYTLTISCMQDEVAATYYCQ^{**Q**}GSSSPPHVRRGDQAGNK^{**TG**}

F26G6-VL

ELVMTQSPASLSVATGKKVTIRCISSTDIDDDMNWYQ^{**Q**}KAGKPPKLLISEGNIFSPGVPSR^{**F**}SSSG
NGTDFVFTVENTLSE^{**D**}VADNYCLQSDNMPFT^{**F**}GS^{**G**}TKLG^{**I**}KRADAAPTVS

F26G8-VL

ELVMTQSPASLSVITGKKVTIRCISNTDIDDDLNWSQLKAGEPPKLLISEGNIFSPGVPSR^{**F**}SSSG
NGTDFVFTIENTLSE^{**D**}VANNYCFQSDNMPFT^{**F**}GS^{**G**}TKLEIKRADAAPTVS

Neutralizing mAbs are in bold text.

FIGURE 8

SARS-specific monoclonal antibodies, Heavy chains (VH), nucleotide sequences

F26G3-VH

ATGGAATGGAGCTGGGTCTTTCTCTTTCTCCTGTCAAGAACTGCAGGTGTCTCTCTGAGGTCCGG
 CTGCAACAGTCTGGACCTGAAGTGGTGAAGCCTGGGGCTTCAGTGAAGATATCTGCAAGACTTCT
 GGATACACATTCAGTGAATACACCATGCACTGGGTGAAGCAGAGCCATGGAAAGAACCTTGAGTGG
 ATTGGAGGTATTAATCCTAATAATGGTGGTACTACCTACAACCAGAAGTTTAAGGGCAAGGCCACA
 TTGACTGTAGACAAGTCTCCAACACAGCCTACATGGAGCTCCGCAGCCTGACATCTGAGGATTCT
 GCAGTCTATTATTGTTCAAGAGGGGACTACGGTACTAGCTACGGGTACTTCGATGTCTGGGGCGCA
 GGGACCACGGTCACCGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCTATCCACTGGCCA

F26G7-VH

GTGGAGCTGCTCGAGTCAGGGACTGTGCTGGCAAGGCCTGGGGCTTCAGTGAAGATGTCTGCGAG
 GCTTCTGGCTACACCTTTACCACCTACTGGATGCACCTGGATAAAACAGAGGCCTGGACAGGGTCTG
 GAATGGATTGGCGCTATTTATCCAGGAAATAGTGATACTACCTACAACCAGAAGTTCAAGGGCAAG
 GCCAACTGACTGCAGTCACATCCACCAGCACTGCCCTACATGGAGCTCAGCAGCCTGACAAATGAG
 GACTCTGCGGTCTATTACTGTACAAGAGAGGGAATTCCCAATTACTTCGGACTATGGACTACTGG
 GGTCAAGGGACCTCAGTCACCGTCTCCTCAGCCAAAACAACACCCCCATCGGTCA

F26G9-VH

GTCCAGCTGCTCGAGTCTGGGACTGTGCTGGCAAGGCCTGGGGCTTCGGTGAAGATGTCTGCAAG
 GCTTCTGGCTACAGCTTTACCAGCTACTGGATGCACCTGGGTAAAACAGAGGCCTGGACAGGGTCTA
 GAATGGATTGGTGCTATTTATCCTGGAAATAGTGATACTAGCTACAACCAGAAGTTCAAGGGCAAG
 GCCAACTGACTGCAGTCACATCCGCCAGTACTGCCCTACATGGAGCTCAGCAGCCTGACAAATGAG
 GACTCTGCGGTCTATTACTGTACAAGATCCGTTTACTACGGCTACGGGTACTTCGATGTCTGGGGC
 GCAGGGACCACGGTCACCGTCTCCTCAGCCAAAACAACACCCCCATCGGTCT

F26G10-VH

GAGGTGCAGCTGGAGGAGTCTGGGACTGTGCTGGCAAGGCCTGGGGCTTCGGTGAAGATGTCTGCAAG
 AAGGCTTCTGGCTACAGCTTTACCAGCTACTGGATGCACCTGGGTAAAACAGAGGCCTGGACAGGGT
 CTAGATTGGATTGGTGCTATTTATCCTGAAATAGTGATACTAGCTACAACCAGAAGTTCAAGGGC
 AAGGCCAACTGACTGCAGTCACATCCGCCAGCACTGCCCTACATGGAGCACAGCAGCCTGACAAAT
 GAGGACTCTGCGGTCTATTACTGTACAAGATCCGTTTACTACGGCTACGGGTACTTCGATGTCTGG
 GCGCAGGGACCACGGTCACCGTCTCCTCAGCCAAAGACAACAGCCCCATCGGTCTATCCACTGGCC
 CCTGTGTGTGGAGATACAACCTGGCTCCTCGGTGACTCTAGGATGCCTGGTCAAGGGTTATTTCCCT
 GAGCCAGTGACCTTGACCTGGAACCTCTGGATCCCTGTCCAGTGGTGTGCACACCTTCCCAGCTGTC
 CTGCAGTCTGACCTCTACACCTCAGCAGCTCAGTGACTGTAACTCGAGCACCTGGCCCAGCCAG
 TCCATCACCTGCAATGTGGCCCCACCCGCAAGCAGCACCAAGGTGGACAAGAAAATTGAGCCCAGA
 GTGCCCCACTAGTCAGAAC

F26G18-VH

TTGGTGCAGCTGGAGGAGTCTGGGACTGTGTTGCCAAGGCCTGGGGCTTCAGTGAAGATGTCTGCAAG
 AAGGCTTCTGGCTACACCTTTACCAGCTACTGGATGCACCTGGGTAAAACAGAGGCCTGGACAGGGT
 CTGGAATGGATTGGCGCTATTTATCCTGAAATAGTGATACTAACTACAACCAGAAGTTCAAGGGC
 AGGGCCACACTGACTGCAGTCACATCCACCAGCACTGCCCTCATGGAGCTCAGCAGCCTGACAAAT
 GAGGACTCTGCGGTCTATTACTGTACAAGAGACGGCTATGGTAGCCTTTATTACTATGCTATGGAC
 TTCTGGGGTCAAGGAACCTCAGTCACCGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCAAGGGC
 GA

FIGURE 9 -1

F26G19-VH

GAGGTGCAGCTGGAGGAGTCTGGGACTGTGCTGGCAAGGCCTGGGGCTTCAGTGAAGATGTCCTGC
 AAGGCTTCTGGCTACACCTTTACCACCTACCGGATGCACTGGATAAAACAGAGGCCTGGACAGGGT
 CTGGAATGGATTGGCGCTATTTATCCTGGAAATAGTGATACTACCTACAACCAGAAGTTCAAGGAC
 AAGGCCAAACTGACTGCAGTCAATCCACCAGCTCTGCCTACATGGAGCTCAGCAGCCTGACAAAT
 GAGGACTCTGCGGTCTATTTCTGTACAAGAGAGGGGAATCCCCAATTACTTCGGACTTTGGACTAC
 TGGGGTCAAGGAACCTCAGTCAACGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCTATCCACTG
 GCC

F26G1-VH

TGAGGTGCAGCTGGAGGAGTCAGGACCTGGCCTGGTGGCGCCCTCACAGAGCCTGTCCATTACCTG
 CACTGTCTCTGGGTTCTCATTAACGAACCTATGATATAAGCTGGATTGCGCCAGCCACCAGGAAAGGG
 TCTGGAGTGGCTTGGAATAATATGGACTGGTGGAGGCACAAGTTATAATTCAGCTTTTCATGTCCAG
 ACTGAGCATCAGCAAGGACAACCTCCAAGAGCCAAGTTTTCTTAAAAATGAACAGTCTGCAAACCTGA
 TGACACAGCCATATATTACTGTGTAAGAGATAGGGTCTACTACTTCCCTATGGACTACTGGGGTCA
 AGGAACCTCAGTCACCGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCTATCCACTGGCCA

F26G6-VH

ATGGAATGGAGCTGGGTCTTTCTCTTTTTGGTAGCAACAGCTACAGATGTCCACTCCCAGGTCCAA
 CTGCAGCAGCCTGGGGCTGAACTGGTGAAGCCTGGGGCTTCAGTGAAAGTGTCTTGCAAGGCTTCT
 GGCTACACCTTCACCAACTACTGGATACACTGGGTGAAGCAGAGGCCTGGACAGGGCCTTGAGTGG
 ATTGGAGAGATTAATCCTGGCAACGGTCGTACTAACTATAATGGGAACCTTCATGAACAAGGCCACA
 CTGACTGTAGACAAATCCTCCAACACAGCCTACATGCAACTCAGCAGCCTGACATCTGAGGACTCT
 GCGGTCTATCACTGTGCAAGATTAGACTACTGGGGCCAAGGCACCACTCTCACAGTCTCCTCAGCC
 AAAACAACACCCCCATCGGTCT

F26G8-VH

GTCCAGCTGCTCGAGTCTGGGGCTGAACTGGTGAAGCCTGGGGCTTCAGTGAAAGTGTCTTGCAAG
 GCTTCTGGCTACACCTTCACCAGCTACTGGATACACTGGGTGAAGCAGAGGCCTGGACAGGGCCTT
 GAGTGGATTGGAGAGATTAAATCCTAGCAACGGTCGTACTAACTATAATGGGAACCTTCGAGAGCAAG
 GCCACACTGACTGTAGACAAATCCTCCAACACAGCCTACATGCACCTCAGCAGCCTGACATATGAG
 GACTCTGCGGTCTATCACTGTACAAGATTAGACTACTGGGGCCAAGGCACCACTCTCACAGTCTCC
 TCAGCCAAAACAACAGCCCCATCGGTCTATCCACTGGCC

Neutralizing mAbs are in **bold text**.

FIGURE 9-2

SARS-specific monoclonal antibodies, Light chains (VL), nucleotide sequences

F26G3-VL

GGGCCCAGCCGGCCGAGCTCGACATTCTGATGACCCAGTCTCCTACTTCCTTTGCTGTATCTCTGG
GGCAGAGGGCCACCATCTCATGCAGGACCAGCCAAAGTGTCTAGTACATCTAGCTATAGTTATATGC
ACTGGTACCAACAGAAACCAGGACAGCCACCACAACTCCTCATCAAGTATGCATCCAACCTAGAAT
CTGGGGTCCCTGCCAGGTTCTGAGTGGCAGTGGGTCTGGGTCTCAGACTTCACCCTCAACATCCATCCTG
TGGAGGAGGGGGATACTGCAACATATTACTGTCAGCACAGTTGGGAGATTCCGTGCGCGTTCCGGAG
GGGGGACCAAGCTGGAAATAAAACGGGCTGATGCTGCACCAACTGTATCC

F26G7-VL

GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCATCCTCCTTATCTGCCTCTCTGGGAGAAAGAG
TCAGTCTCACTTGTCTGGGCAAGTCAGGAAATTAGTGGTTATTTAAGCTGGCTTCAGCAGAAACCAG
ATGGAACATATTAAACGCCTGATCTACGCCGCATCCACTTTAGATTCTGGGTGTCCCAAAAAGGTTCA
GTGGCAGTAGGTCTGGGTCTGAGTATTCTCTCACCATCAGCAGCCTTGAGTCTGAAGATTTTGCAG
ACTATTACTGTCTACAATATATTAGTTATCCGTGGACGTTCTGGGGGAGGTACCAAGCTGGAATCA
AACGGGCTGATGCTGCACCAACTGTATCC

F26G9-VL

GACATTCTGATGACCCAGTCTCACAAATGCATGTCCACATCAGTAGGAGACAGGGTCAGCATCACC
TGCAAGGCCAGTCAGGATGTGAGTACTGCTGTAGTCTGGTATCAACAAAAACCAGGGCAATTTCT
AAACTACTGATTTACTGGGCATCCACCCGGCACACTGGAGTCCCTGATCGCTTCACAGGCAGTGGA
TCTGGGACAGATTATACTCTCACCATCAGCAGTGTGCAGGCTGAAGACCTGGCACTTTATTACTGT
CAGCAACATTATACCACTCCGTACACGTTCTGGAGGGGGACCAAGCTGGAATAAAACGGGCTGAT
GCTGCACCAACTGTATCC

F26G10-VL

GGGCCCAGCCGGCCGAGCTCGACATTCTGATGACCCAGTCTCACAAATTCATGTCCACATCAGTAG
GAGACAGGGTCAGCATCACCTGCAAGGCCAGTCAGGATGTGAGTACTGCTGTAGCCTGGTATCAAC
AAAAACCAGGGCAATCTCCTAACTACTGATTTACTGGGCATCCACCCGGCACACTGGAGTCCCTG
ATCGCTTCACAGGCAGTGGATCTGGGACAGATTATACTCTCACCATCAGCAGTGTGCAGGCTGAAG
ACCTGGCACTTTATTACTGTCTCAGCAACATTATAGCACTCCGTACACGTTCTGGAGGGGGGACCAAGC
TGGAATAAAACGGGCTGATGCTGCACCAACTGTATCC

F26G18-VL

GAGCTCGTGATGACCCAGTCTCCATCCTCCCTGTCTGCCTCTCTGGGAGACAGAGTCACCATCAGT
TGCAGGGCAAGTCAGGACATTAGCAATTATTTAAACTGGTATCAGCAGAAACCAGATGGAAGTGT
AAACTCCTGATCTATTACACATCAAGATTACACGCAGGAGTCCCATCAAGGTTCTAGTGGCAGTGGG
TCTGGAACAGATTATTCTCTCACCATTAGCAACCTGGAGCAAGAAGATATTGCCACTTACTTTTGC
CAACAGGGTTATACGCTTCCGTACACGTTCTGGAGGGGGGACCAAGCTGGAATAAAACGGGCTGAT
GCTGCACCAACTGTATCCAA

F26G19-VL

GACATTCTGATGACCCAGTCTCCATCCTCCTTATCTGCCTCTCTGGGAGAAAGAGTCAGTCTCACT
TGTCGGGCAAGTCAGGAAATTAGTGGTTACTTTAAGCTGGCTTCAGGAGAAACCAGATGGAAGTATT
AAACGCCTGATCTACGCCGCTTCCACTTTAGATTCTGGTGTCCCAAAAAGGTTCTAGTGGCAGTAGG
TCTGGGTCTGAGTATTCTCTCACCATCAGCAGCCTTGAGTCTGAAGATTTTGCAGACTATTACTGT
CTACAATATGTTAGTTATCCGTGGACGTTCTGGTGGAGGCACCAAGCTGGAATCAAACGGGCTGAT
GCTGCACCAACTGTA

FIGURE 10-1

F26G1-VL

GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCAGTATCCATAACTGCATCTCGAGGGGAGAAGG
TCACCATCACCTGCCGTGCCAGCTCAAGTATAAGTTCCAATTACTTACACTGGTACCAGCAGAAGC
CAGGATCCTCCCCTAAACTTTTGATTATAGGACATCCATCCTGGCATCTGGAGTCTGGACACCT
TCAGTGGCAGTGGGTCTGAGAGCTCTTACACTCTGACAATCAGCTGCATGCAGGACGAAGTTGCTG
CCACTTACTATTGTCTAGCAGGGGAGTAGTACCCACCACACGTTCTGGAGGGGGACCAAGCTGGAA
ATAAACCGGGCTGATGCTGCACCAACTGTATCCA

F26G6-VL

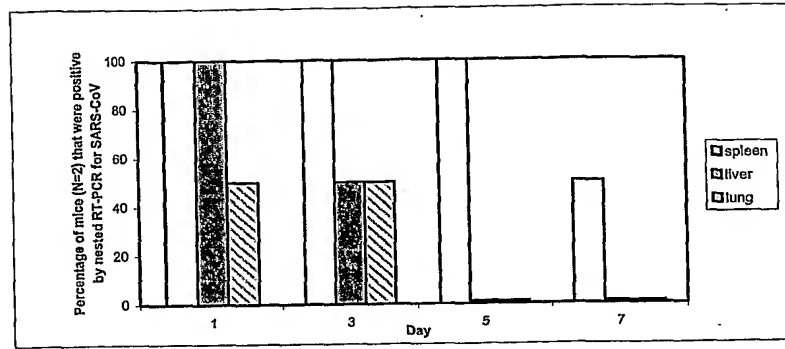
GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCAGCATCCCTGTCCGTGGCTACAGGAAAAAAG
TCACCATCAGATGCATAAGCAGCACTGACATTGATGATGATATGAACTGGTACCAGCAGAAGGCAG
GAAAACCTCCTAAACTCCTTATTTTCAGAAGGCAATATTTTTAGTCCTGGAGTCCCATCCCGATTCT
CCAGCAGTGGCAATGGCACAGATTTTGTTTTTACAGTTGAAAACACGCTCTCAGAAGATGTTGCAG
ATAACTACTGTTTGCAAAGTGATAACATGCCATTACGTTCTGGCTCGGGGACAAAGTTGGGAATAA
AACGGGCTGATGCTGCACCAACTGTATCC

F26G8-VL

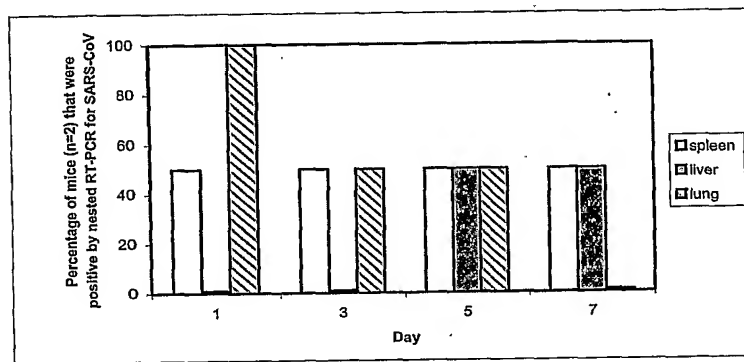
GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCAGCATCCCTGTCCGTGATTACAGGAAAAAAG
TCACCATCAGATGCATAAGCAACACTGACATTGATGATGATTTGAACTGGTCCCAGCTGAAGGCAG
GAGAACCTCCTAAACTCCTTATTTTCAGAAGGCAATATTTTTAGTCCTGGAGTCCCATCCCGATTCT
CCAGCAGTGGCAATGGCACAGATTTTGTTTTTACAATTGAAAACACGCTCTCAGAAGATGTTGCAA
ATAACTACTGTTTCCAAAGTGATAACATGCCATTACGTTCTGGCTCGGGGACAAAGTTGGGAATAA
AACGGGCTGATGCTGCACCAACTGTATCC

Neutralizing mAbs are in **bold text**.

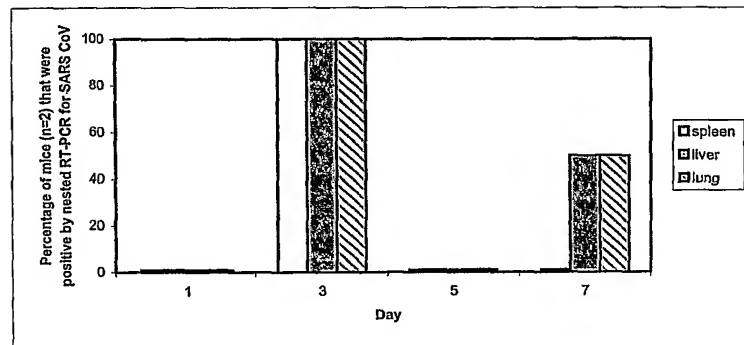
FIGURE 10-2



(A)

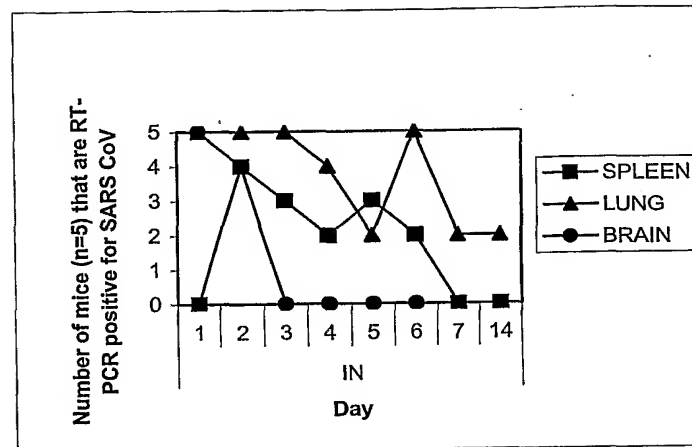


(B)

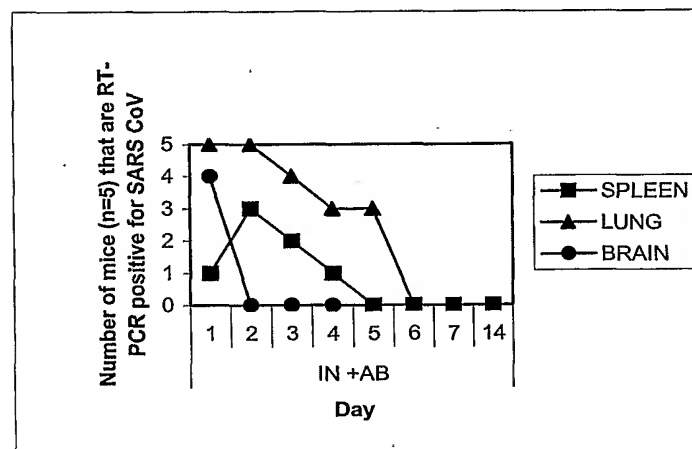


(C)

FIGURE 11



(A)



(B)

Figure 12

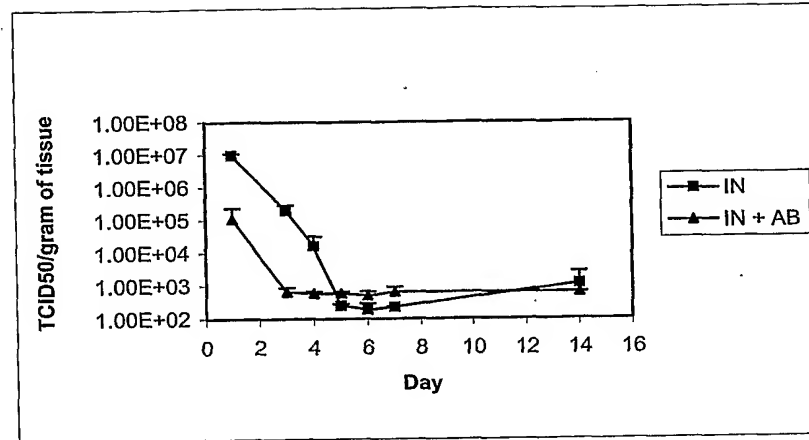


Figure 13